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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,216	02/25/2004	Yuichi Yamato	4060.P0044US	3043

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KALAMAZOO, MI 49008-1631

EXAMINER

CHANG, VICTOR S

ART UNIT	PAPER NUMBER
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1771

MAIL DATE	DELIVERY MODE
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07/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/786,216

Applicant(s)

YAMATO ET AL.

Examiner

Victor S. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Introduction

1. Applicants' amendments and remarks filed on 1/22/2007 have been entered. Claim 11 has been amended. Claims 1-10 have been cancelled. Claims 11-14 are active.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. In response to the amendment and argument, the Zimmerman and Kamiya references have been withdrawn. New grounds of rejection are set forth below.

Rejections Based on Prior Art

4. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61073607A [Derwent abstract] in view of Itoh et al. [US 4201698].

JP '607 relates to a NBR foam based cosmetic puff having a sufficient water holding (adsorption) properties.

For claims 11 and 12, JP '607 is silent about: 1) the ingredients in the NBR based curable composition, i.e., crosslinking agent, co-vulcanizable polymer, various fillers, and their amounts, 2) the foam is made by an extrusion molding process, 3) cell structure of the foam, and a workable range of water absorption. However, regarding 1) and 2), Itoh's invention relates to a NBR based curable rubber compositions. Butadiene-acrylonitrile rubbers (NBR) and silicone rubber can be co-vulcanized into a rubbery elastomer with improved properties [abstract; col. 2, lines 9-13 and 59-67]. Curing (vulcanizing) agents include organic peroxides [col. 6, lines 10-

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17]. The amount of reinforcing siliceous filler is in the range of 5 to 200 parts by weight per 100 parts by weight of rubber component [col. 6, lines 1-6], in combination with other non-reinforcing or non-siliceous fillers, such as calcium carbonate, etc. [col. 5, lines 63-68]. In Table VI, Itoh shows examples of using about equal amount of calcium carbonate and siliceous fillers. The cured rubbery elastomers have excellent mechanical strengths [col. 2, lines 24-26], such as elasticity, compression set and permanent, and are suitable for a wide range of applications. The composition can be processed by a conventional rubber extrusion molding [col. 6, lines 44-47]. Further, the examiner takes Official notice that adding a blowing agent in extrusion molding process to form an extruded foam product is common and well known. It would have been an obvious to one of ordinary skill in the art of NBR based cosmetic puff to add a blowing agent to Itoh's NBR based curable composition to make the cosmetic puff of JP '607, motivated by the desire to obtain a puff with beneficiary properties. As to the particle shape of the calcium carbonate, absence of any unexpected results, Itoh's disclosure of calcium carbonate particles reads on any workable particle shapes. Regarding 3), since JP '607 discloses the same subject matter for the same end use, a workable cell structure with varying cell size distribution is deemed to be either anticipated by prior art, or obviously provided by practicing the invention of prior art, motivated by the desire to obtain properties dictated by the same end use. Regarding 4), since JP '607 discloses a NBR based foam having a sufficient water holding (adsorption) properties, a workable range of water absorption is deemed to be anticipated, or obviously provided by practicing the invention of prior art.

For claim 13, the nitrile group in NBR is inherently a polar group.

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5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61073607A [Derwent abstract] in view of Itoh et al. [US 4201698], and further in view of Morrill [Rubber Technology, pages 304-309].

The teachings of JP '360 and Itoh are again relied upon as set forth above.

For claim 14, Itoh is silent about the range of acrylonitrile content in NBR. However, Morrill teaches the NBR technology in general, and shows in Table 12.1 that various properties, such as oil resistance, hardness, resilience, etc., of NBR are related to acrylonitrile wt% in the copolymer. It would have been an obvious selection to one of ordinary skill in the art to select a suitable amount of acrylonitrile wt% in the NBR copolymer, motivated by the desire to obtain required physical properties for end application, such as oil resistance and resilience required for articles in contact with cosmetic products.

Response to Argument

6. Since the Zimmerman and Kamiya references have been withdrawn, applicants' arguments directed to these references are moot.

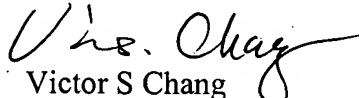
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Victor S Chang
Primary Examiner
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7/13/2007